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Notes on a Northern Short-tailed Shrew

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Data on shrews are not so extensive that a note concerning their food requirements is out of place. A specimen of the northern short-tailed shrew, *Blarina brevicauda talpoides* Gapper, was collected by Miss Margot Weidmann in Gloyesky Woods, a flood plain forest of Coffee Creek, near Chesterton, Porter County, Indiana, shortly after noon July 10, 1948 on a trip of a Northwestern University class in field zoology. It was taken from what appeared to be an abandoned mouse nest under a log.

The animal was placed in a laboratory rat cage in order to ascertain the amount of food consumed. It was fed daily at about noon. Beginning on July 20 exact weights were taken of all food offered and of the residue that remained in the cage on the following day. Table 1 shows the amount and type of food offered, the residue, total food eaten for each day it was under observation, and the water consumption for the last five days of the experiment.

During these last five days a drinking dish identical with the one used in the cage was placed outside of the cage to correct for water lost by evaporation. The sliding pan below the drop bottom of the cage was lined with paper toweling which blisters and discolors when it has been wet; at no time during the experiment was this the case. It seems highly probable that water loss was due to consumption by the shrew, none being splashed from the dish.

It was impossible to keep the shrew under observation over the weekend of July 31. Consequently 71.9 grams of food were placed in the cage. On the following Monday morning, August 2, it was found dead, apparently from starvation. No edible residue was in the cage and the stomach was found empty.

The shrew was fed on small fishes and crayfishes which were collected and then frozen and stored. Although seemingly unnatural types of food for this animal they were readily accepted.

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It is apparent from these data that the mean daily food consumption for the shrew over the ten day period was 25.61 grams. This is approximately 1.7 times its own weight which was 14.8 grams on July 20. Mean daily water consumption was 9.1 cc. Shull (1907)* estimated that a shrew could eat either two-thirds of a meadow mouse, or one house mouse, or 15 May beetles, or 35 earthworms (four centimeters long, contracted) per day; he further estimated that in a month a shrew would consume eight meadow mice (40 per cent of the total food), 90 adult and 78 larval insects the size of *Phyllophaga* (40 per cent), 53 earthworms (5 per cent), and 18 snails (15 per cent). Assuming that 25.61 grams per day would maintain a shrew under natural conditions, a specimen would eat about 740 grams of food per month.

The specimen, a female, now in the Northwestern University collections, measured 115 mm. in total length, 25 mm. tail length, and 15 mm. length of hind foot.

I am indebted to Dr. Orlando Park and Stanley I. Auerbach for assistance in the study of this interesting animal and for suggestions on the preparation of this note.

TABLE 1

FOOD CONSUMED BY A SHORT-TAILED SHREW IN THE LABORATORY

Date	Amount Food (in grams)	Type	Residue (in grams)	Amount eaten (in grams)	Amount water
20 July	17.8	pike	1.5	16.3	
21 July	1.5 18.4	pike minnow	.6	19.3	
22 July	24.0	minnows	.4	23.6	
23 July	30.0	3 crayfish	1.5	28.5	
24 July	34.0	4 crayfish			
25 July	26.0	6 crayfish	7.7	52.3	9.0 cc.
26 July	35.0	8 crayfish	5.5	29.5	11.0 cc.
27 July	14.3 19.8	minnow 6 crayfish	8.1	26.0	13.5 cc.
28 July	29.3	5 minnows	5.9	23.4	12.5 cc.
29 July	3.9 27.0	minnow 4 crayfish	3.5	27.2	.5 cc.
30 July	7.9 64.0	minnow 14 crayfish			

*Shull, A. Franklin, Habits of the short-tailed shrew, *Blarina brevicauda* (Say). Amer. Nat., vol. 41, 1907, p. 495-522.